

### REMARKS

Claims 1-41, 43 and 44 are pending in the application, claim 42 being canceled herein. Claims 1, 15, 22, 24 and 44 are the only independent claims.

#### *Claims Rejections - 35 U.S.C. §§ 102 and 103*

Claims 1-6, 8, 9, 12-14, 20, 21, 23-25, 32, 33, 37, 38, 41, and 42 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,257,617 to Takahashi.

Claims 16 and 40 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi.

Claims 10 and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi in view of U.S. Patent No. 5,817,015 to Adair.

Claims 7 and 26-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi in view of U.S. Patent No. 6,929,601 to Nakao.

Claims 30 and 31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi in view of Nakao and further in view of Adair.

The Examiner has indicated that claims 15, 17-19, 22, 34-36, 39 and 43 would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims.

**Claim 1** Applicant has amended claim 1 herein to provide a better definition of the invention. Applicant respectfully maintains that amended claim 1 distinguishes the invention over the prior art and particularly over the art relied on by the Examiner in rejecting the claims of the instant application.

As set forth in amended claim 1, a flexible endoscope comprises a flexible elongate insertion shaft formed along an outer surface with at least one longitudinally

extending channel having a transverse dimension or diameter. The channel has a longitudinally extending slot through the outer surface of the endoscope insertion member, the slot having a transverse dimension or width. The transverse dimension or width of the slot is smaller than the transverse dimension or diameter of the channel.

The prior art neither discloses nor suggests an endoscope with a slotted working channel, where the width of the slot is *smaller* than the diameter of the channel. The primary reference relied on by the Examiner, namely, Takahashi, discloses an endoscope with a channel having a longitudinal opening with a width *larger* than the maximum diameter of the channel. Add here that if the slot is small enough, it may exist without a cover, because it will contain a biopsy forceps or another instrument. It is open only to admit water and detergent to clean it.

In the scope of Takahashi, the wide opening or mouth of the external working channel does nothing, in and of itself, to prevent a tubular member in the channel from popping out of the channel, particularly when the endoscope insertion member is bent. The Takahashi scope thus requires a stiff sheath to hold the tubular member in place in the external working channel. This stiffness militates against the desired flexibility of a flexible endoscope. In contrast, in an endoscope pursuant to applicant's present invention, the slot in the channel is narrower than the diameter of the channel, which prevents a catheter or other tubular member in the channel from popping out of the channel even where the endoscope is bent or curved.

**Claim 24** Applicant has amended claim 24 herein to provide a better definition of the invention. Applicant respectfully maintains that amended claim 24 distinguishes the invention over the prior art and particularly over the art relied on by the Examiner in

rejecting the claims of the instant application. More particularly, applicant has amended claim 1 to incorporate the limitations of claim 42, which has been canceled, as well as additional language clarifying the limitations of claim 42.

As set forth in amended claim 24, an endoscope assembly comprises an elongate flexible endoscope insertion member provided with at least one channel along an outer cylindrical surface, the channel being open along the surface and having a mostly circular cross-section divided by a slot. The channel is defined by a surface of the insertion member having a C-shaped cross-section with longitudinal edges defining the slot being turned in and extending towards one another. An elongate closure member is removably attachable to the insertion member so as to close the channel along the cylindrical surface.

The prior art neither discloses nor suggests an endoscope with a *C-shaped* working channel having a slot, where the edges defining the slot are *turned in and extend towards one another*. In the scope of Takahashi, the opening is *U-shaped*, as clearly recited in the Takahashi specification, and is defined by edges or longitudinal peripheries that *diverge* from one another.

Again, the advantage of applicant's design is that endoscopic instruments having tubular outer members are held in the endoscope channel by the in-turned edges defining the slot of the channel.

**Claims 10, 1, 30, 31** Applicant respectfully traverses the Examiner's application of the Adair reference to these claims. The pull tab of Adair serves a vastly different purpose from the pull tab of applicant. The Adair pull tab assists in pulling a tubular

sheath over an endoscope insertion member, whereas applicant's pull tab facilitates a pulling of a small spine in alternate directions in order to close or open a thin slot.

**Claim 15** Claim 15 has been made independent, pursuant to the Examiner's indication that claim 15 contains allowable subject matter. The word "fiberoptic" has been eliminated from claim 15 (and from claim 1) as an unnecessary limitation.

**Claim 22** Claim 22 has been made independent, pursuant to the Examiner's indication that claim 22 has allowable subject matter. The word "fiberoptic" has been eliminated from claim 22 as an unnecessary limitation.

**Claim 44** New claim 44 is directed to an ancillary feature of applicant's present invention. It is believed that prior art teaching the use of a sheath always requires use of an end cap on an endoscope insertion member in conjunction with the sheath. In this regard, applicant cites her prior Patent No. 5,217,001, as well as other patents of Silverstein and Opie (in addition to U.S. Patent No. R34,110 cited by the Examiner) in an Information Disclosure Statement enclosed herewith.

**Claims 7 and 26-29** Applicant respectfully traverses the Examiner's rejection of claim 7 under 35 U.S.C. § 103(a) for reasons set forth above with reference to claim 1. Applicant also traverses the Examiner's rejection of claim 7 because applicant's Patent No. 6,929,601, used by the Examiner as a secondary reference supporting the rejection of claim 7, is not properly cited as prior art to the instant application.

Similarly, applicant respectfully traverses the Examiner's rejection of claims 26-29 under 35 U.S.C. § 103(a) for reasons set forth above with reference to claim 24. Applicant also traverses the Examiner's rejection of claims 26-29 because applicant's

Patent No. 6,929,601, used by the Examiner as a secondary reference supporting the rejection of claims 26-29, is not prior art to the instant application.

The claim amendments, if any, made herein are made without prejudice to applicants' right to pursue additional subject matter in a separate continuation or divisional application.

*Conclusion*

For the foregoing reasons, independent claim 1, as well as the claims dependent therefrom, is deemed to be in condition for allowance. An early Notice to that effect is earnestly solicited.

Should the Examiner believe that direct contact with applicant's attorney would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the number below.

Respectfully submitted,

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